



Word on the Waves

a publication of the Fisheries Observation Science Program at the Northwest Fisheries Science Center

Observer Spotlight:

Cassandra Lafontaine

At-Sea Hake Observer since 2016

Cassandra Lafontaine is an east coast girl working in the west coast world. A Vermont native, she commutes across the country to observe in our At-Sea Hake Observer Program.

It's unusual to find a west coast observer who didn't grow up somewhere along the Pacific Ocean. Cassandra Lafontaine bucks this trend. A native Vermonter, she commutes across the country in her off time to see her family, check in with her friends, and share tales of her adventures. She says:

"My family has always lived in a land-locked state."

"Since I get to travel for work, they like to see the places I go and hear about what I do. My mom likes to tell everyone about her daughter the marine biologist who works on fishing boats in Alaska. I'm known as the girl who works in Alaska around town."

Cassandra knew nothing about observing before college. Luckily, her ex-observer, ichthyology professor suggested she look into it. With no solid post-graduation plans in hand, she decided to give it a go.

Despite her landlubber beginnings, Cassandra loves the ocean. Working on the ocean is a dream come true. Aside from being on the water, her favorite part of observing is working with the fish. *"It's an amazing experience to see, touch, and examine so many different species of fish that I never thought I would ever see in my life,"* she says.

And then there are the memorable moments:

"One of my most memorable moments was during my first cruise. I was on an Amendment 80 boat and I watched orcas swim alongside the boat. They were so close I felt like I could reach my hand out and touch one. It was one of the coolest things I have witnessed at sea."

When she's not observing, Cassandra returns to Vermont and an outdoor-oriented lifestyle. Her activities include swimming, kayaking, hiking,



From the Program

Jon McVeigh,
Program Manager

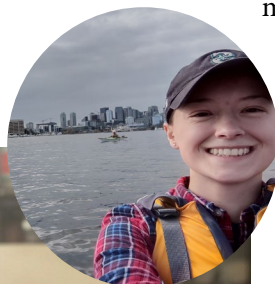
Hello Observers and Friends,

In case you haven't heard, west coast fisheries hit a significant milestone recently. On June 19th, the final rule governing Electronic Monitoring (EM) technologies in the whiting and fixed gear sectors of the West Coast trawl Catch Share (CS) program was published.

This rule has been a long time coming. And while there's still important work to be done, including finalizing regulations for the bottom trawl sector, it represents an important collaboration between the Northwest Fisheries Science Center (NWFS), West Coast Region (WCR), Council, and Industry. January 1, 2021 is the targeted implementation date.

Since 2006, NOAA Fisheries has invested approximately \$20 million nationwide to develop and implement electronic technologies. Operating under Exempted Fishing Permits (EFPs), fishing vessels in the West Coast fleet have been using EM technologies as an alternative to human observers for quota accounting in the CS program since 2015. This helped determine if EM could serve as a compliance tool and reduce costs.

Obviously, this ruling directly affects us. Under this new framework, our program will be auditing some portion of the data from third-party EM providers to assure their video-produced estimates meet data quality standards, as we do with our current observer-generated data. For the rest of this year and into 2020, Observer Program staff will be developing the skills necessary to process and extract data from EM video as well as assess the quality of the information provided by EM providers.



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Fisheries News

Do fisheries management rules and regulations, particularly those that require observing, work? This is an ongoing debate. However, there's no refuting success. [This article](#) reveals that not only are the regulations for the west coast working, but working better than expected. Much of that success is due to observers. Keep up the good work!

Turns out the rebounding species coupled with new fishing flexibilities are helping the west coast commercial fishing industry boom. NOAA Fisheries report an estimated \$5.5 million dollar increase to West Coast communities in 2018. [Read about it here.](#)

Reporting harassment, particularly sexual harassment, is difficult. NOAA is taking steps to ease this process. [Listen](#) to how NOAA is trying to encourage observers, especially female observers, to report sexual harassment incidents. Please talk to your debriefer

or someone on the FOS staff if you experience harassment, even if it seems insignificant. Reporting harassment is another way to keep you and other observers safe at sea.

NOAA Fisheries recently spotlighted North Pacific observer, Thomas Piecuch. Tom is stationed in Dutch Harbor and acts as lead observer for that area. Read the whole interview [here](#).

NOAA Fisheries videos

May 17th was Endangered Species Day. NOAA Fisheries released [this video](#) highlighting the organization's aquatic endangered species work.

We're happy to see observers and our own CA Coordinator, John LaFargue, featured in the [We Are NOAA Fisheries 2019](#) video. You can see observers



Fishermen aboard the F/V Miss Sue participate in a midwater rockfish exempted fishing permit. Photo: John Rae.

at the :40 mark, John follows at :45.

Observers are also featured in [Fishery Observers on Board](#) highlighting what you do. Shout out to former At-Sea Hake observer, Carrie Yehle, who's featured via her film making skills.

Speaking of videos...

[This little ditty](#) came our way recently. Bobby Buzzell was an observer with the Alaska program. She gave this performance as a farewell before leaving for grad school. Enjoy.

Featured Observer - continued

Cassandra's advice to new observers:

Pack light. Carrying a big duffel up and down docks and all over a ship sucks.

camping, snowboarding, and playing in the snow with her niece. Mostly she focuses on connecting with as many family members, friends, and loved ones as she can before heading back to sea.

Of course her bucket list is ocean-focused. She hopes to see a basking shark; they're one of her favorite animals. She'd also like to dive in the Great Barrier Reef before it disappears.

Cassandra, thank you for your enthusiasm, passion, and consistent hard work. Your efforts are greatly appreciated.



From the Program - continued

This EM ruling is an opportunity. It presents us with new challenges and demands new skills. We have a lot to learn. That said, we're excited to add this specialized capability to our fisheries observation toolbox. In concert with our outstanding Observer Program, EM has potential to expand our monitoring efforts across West Coast fleets. We're looking forward to forging ahead and exploring new data collection techniques, while building a sound knowledge base and infrastructure to support future research and monitoring efforts.

I'm committed to keeping us at the forefront of this positive wave by being flexible and responsive to the needs of management and the fishery. I'm looking forward to another year of working hard to meet these goals – even if it means doing more homework.

As always, thank you for your hard work. Stay safe.

Cheers,

John T. McVeigh



From the Galley

John LaFargue, CA Coordinator

A few years ago, I received a small bottle of mysterious green paste as a gift. It was covered in Japanese characters and a generic sticker in English stating, “Ingredients: chilies, salt, citrus”. After a little research, I figured out it was yuzu kosho, a Japanese condiment made by fermenting chilies (most often green or red Thai or bird’s eye chilies) with salt and yuzu juice. (Yuzu is a tart, East Asian, citrus fruit and is an Asian cuisine staple.)

I’d heard of yuzu kosho, but I’d never experienced it. It tasted salty, sour, and spicy. I was intrigued. I started hunting down different versions of it in various cities I visited. I learned there’s a huge variety in the flavor, spice and salt levels. Some are bright and interesting tasting, while others are flat and overly salty.

You know the next step: I wanted to make my own. Although I live in California (the only US state where yuzu grows), I didn’t have any on hand. I followed online recommendations to use a mix of local citrus (lemon, lime, and grapefruit) as a substitute.

So far, my experiments have come out pretty well. I enjoy my homemade yuzu kosho on grilled or broiled fish, vegetables, and especially a dab on slabs of yellowtail sashimi. If you’re not up to making your own, you can find commercial yuzu kosho in specialty stores, Asian markets, and online.

This recipe incorporates the yuzu kosho flavors without the fermenting process. Feel free to substitute a tablespoon or two of pre-made yuzu kosho for the chilies, citrus, and Kosher salt.

This is a delicious flavor combination. Give it a try and let me know what you think.



Salmon with Yuzu Osho

Ingredients

- 1 1½-lb. salmon fillet
- 2 Tbsp white miso
- 4 tsp mirin
- 2 tsp soy sauce
- 2 jalapeño, seeds removed, chopped
- 2 serrano chile, seeds removed, chopped
- Kosher salt
- Zest and juice of ¼ grapefruit, ½ lemon, 1 lime, and 2-3 tablespoon mixed juice from all three
- Vegetable oil
- Lime wedges (for serving)

Directions

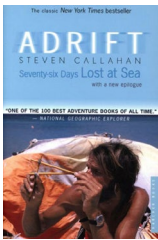
1. Slice salmon into four, 1”–1¼”-thick fillets.
2. In a small bowl, mix miso, mirin, and soy sauce until smooth.
3. Chop jalapeño and serrano chilies. Mix chopped chilies with a 1/8 teaspoon salt on a cutting board and mash with the side of a chef’s knife until a coarse purée forms. Transfer to a small bowl. Mix in lime, lemon and grapefruit zest and juice; adjust salt to taste. Add enough of the mixed juice to form a loose sauce.
4. Preheat broiler. Use the vegetable oil to grease a baking sheet or oven proof pan. Place salmon on the prepared pan and brush with miso mixture. Broil until lightly browned and cooked through, about 4-5 minutes.
Don’t turn your back on it! The Mirin burns quickly.
5. Top salmon with a little chili mixture and serve with lime. Keep the extra chili mixture in the fridge for up to a week.



Good Reads on the Waves

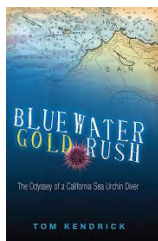
Kevin Stockmann, AOI Observer

After the deck is cleared, and the rain gear is stowed, it's time to eat and then settle into the sleeping bag for another long tow. Isn't it soothing to relish a good book on the waves? Here's a baker's dozen of ocean-related favorites recommended for your delight. If you have favorites to suggest, I'd love to hear about them at KStockmann@psmf.org.



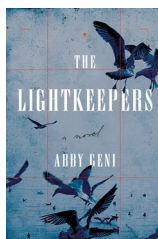
Adrift: Seventy-Six days Lost at Sea, by Steven Callahan, 1986. A riveting memoir of the author's harrowing survival in a life raft.

Astoria, by Washington Irving, 1836. Fort Astoria, established in 1811, was the first American-owned settlement on the West Coast. This is a colorful and gripping history of an earlier time in the Northwest and on the sea.



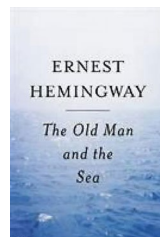
Blue Water Gold Rush: the Odyssey of a California Sea Urchin Diver, Tom Kendrick, 2006. A must read for anyone interested in sea urchin diving. Set in Santa Barbara and Fort Bragg in the wide open 1980s.

Devil's Teeth: A True Story of Obsession and Survival among America's Great White Sharks, by Susan Casey, 2005. A fascinating look at the sharks and scientists of the Farallon Islands.



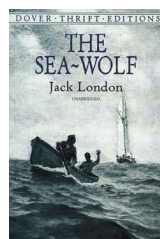
The Lightkeepers, by Abby Geni, 2016. A luminous mystery novel set on Southeast Farallon Island, where a nature photographer struggles to coexist with nesting seabirds and quirky scientists.

Neptune's Apprentice: Adventures of a Commercial Fisherwoman, by Marie De Santis, 1984. Check your library for this out of print classic about an up and coming Bodega Bay fisherwoman back in the heyday of salmon and herring fisheries.

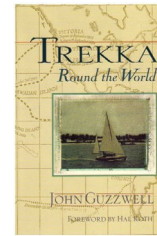


The Old Man and the Sea, by Ernest Hemingway, 1952. Short and bittersweet, this is the story of an aging fisherman struggling to catch a giant marlin in the Atlantic Gulf Stream.

Sea of Glory: America's Voyage of Discovery, the U.S. Exploring Expedition, 1838-1842, by Nathaniel Philbrick, 2003. The captivating tale of the Navy's official surveying of the Pacific Ocean led by the imperious Captain Charles Wilkes.



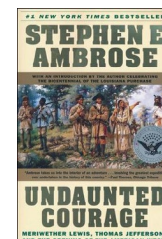
The Sea-Wolf, by Jack London, 1904. Returning from a summer cottage on Mount Tamalpais, a ferry collision puts the protagonist into San Francisco Bay. He drifts out the Golden Gate and is rescued and pressed into service aboard a seal-hunting schooner.



Trekka Round the World, by John Guzwell, 1964. Young and full of gumption, the author builds a 20' yawl and sets out from Victoria, B.C. for a minimalist

style four-year circumnavigation in the 1950s.

Two Years before the Mast, by Richard Henry Dana Jr., 1840. A beautiful description of coastal California during its short time as a sparsely populated province of Mexico and a vivid account of life as common sailor on the long voyage from Boston to California.



Undaunted Courage: Meriwether Lewis, Thomas Jefferson, and the Opening of the American West, by Stephen Ambrose, 1996. A stirring biography of

Lewis and Clark's epic expedition to the Pacific Ocean.

Where the Sea Breaks its Back: The Epic Story - Georg Steller & the Russian Exploration of Alaska, by Corey Ford, 1966. As the naturalist aboard Vitus Bering's Russian Alaska expedition in 1741, Steller was the first to describe the natural history of Alaska and posit that Alaska was part of North America.



Diving into the Black Box: An Analyst's Adventure in DC

Kayleigh Somers, Data Analyst

Observers often tell us they feel their data goes into a black box after it's debriefed. We've made it a priority to share how observer data is used, at trainings, briefings, and in this newsletter, but I'm sure it can still feel like the data just disappears (let us know if you have suggestions on improving that!).



With National Observer Program Coordinator, Liz Chilton, in front of a preserved giant squid eyeball at NOAA's Systematics Lab in the Smithsonian Natural History Museum.

We analysts feel the same way about our reports and analyses: Where do they go? I've been learning more about how our data is used in regional management through my participation on the Pacific Fishery Management Council. However, how our work is used by and influences NOAA Fisheries at the national level is still hazy.

In May, I did a "detail" in the Office of Science & Technology at NOAA Headquarters (HQ) in Washington, DC. I moved to DC for five weeks to work on a portion of the [National Bycatch Report](#),

which combines observer data from all NOAA's regions into a single source for national bycatch data. It's a great project and, as I discovered, hugely complicated to create.

During my stay, I spoke with people in positions similar to mine from across the nation to learn more about their observer programs and bycatch estimations. Each region observes their fisheries differently: the Northeast has sectors with voluntary observer coverage, Alaska has sectors with 100% coverage. HQ has to acknowledge these differences while also using the collected data to make national decisions about observer and fishery management priorities and funding. HQ often solicits information from each region that may seem obvious, but our answers help decision-makers understand the details while considering the big picture.

I still don't understand all the HQ in's and out's. It's a big place. However, the takeaway is our data and work isn't going into a black box. It's valued, used and making a difference.

If you'd like to know about my time in DC or have questions about data analysis and reports, please reach out. I love discussing our work: Kayleigh.Somers@noaa.gov.

Meet Summer Intern Delaney Kuehnel

Each summer, the Northwest Fisheries Science Center (NWFSC) hosts numerous interns. Some arrive with an extensive knowledge of fisheries management, some are here to check it out and get a feel for what's involved. This year, we're happy to have one of these interns with us.

Delaney Kuehnel is from El Paso, Texas. She's a Biology major at the University of Texas at El Paso and plans to graduate in May 2020. She's here via the [Joint Institute for the Study of the Atmosphere and Ocean](#) (JISAO) program, a research collaboration

between the University of Washington and NOAA.

Delaney is working with our analysts, Kayleigh Somers and Kate Richerson. She's using observer logbook data to visualize how much lost and/or discarded fishing gear vessels encounter. This helps us understand how [ghost fishing](#) impacts marine mammal entanglements and allows us to map where entanglements occur.

Delaney is also getting a crash course in observing. "Before the internship, I had no idea what observing was," she

says. "It's exciting to learn about this entire field of study I knew nothing about." She might even give it a try after graduation. That's what we like to hear!

Delaney is in our Seattle office through August. If you have any questions for her or want to know about the JISAO program, please contact Kate Richerson: kate.richerson@noaa.gov.



Where Are They Now: Ken Grimes and Jeannine Memoly, New FOS Debriefers

We're always on the lookout for ex-observers who are putting their observer experience to good use. Former West Coast observer, Ken Grimes, and former At-Sea Hake observer, Jeannine Memoly, recently stepped off the boats - literally - and into our offices as new debriefers. Here's what they're thinking as they transition to land.

Ken Grimes

Ken joined the West Coast Groundfish Observer program as a catch share observer in 2013. He moved to the non-catch sector in 2016, and finished his observing career as the lead observer based out of Astoria, OR, which is where he's stationed as a debriefer.

Ken cites many reasons for getting off the boats, like a predictable schedule and the ability to make plans. However, he says debriefing allows him "to get a different perspective of the observer program and to further (his) fisheries management knowledge." He's looking forward to "using (his) fisheries acumen and experience to help other observers be successful."

Ken's career goal is "to make a difference for those working in the fisheries industry commercially and scientifically." He considered jobs with the United States Coast Guard, NOAA Corp, and other maritime positions, but chose debriefing. It allows him "to help observers not only collect the best data possible, but also enjoy their time on the ocean."

How did Ken present his observer-based skills when applying to non-observing roles? He says:

"Luckily, my observer skills and the debriefing world are symbiotic. However, observing teaches you to navigate potentially hostile work environments and solve problems with limited resources in extreme conditions. Communication and creative problem-solving are two skill sets any hiring manager is looking for. Observing teaches you to do both in spades."

Ken knows he's going to miss being out on the water. That's okay. He's looking forward to this new chapter of his life. His parting advice to those considering their next step? "Don't be afraid to make a change."



Jeannine Memoly

Jeannine observed in the North Pacific's pollock and flatfish fisheries for six years before becoming an at-sea hake observer with FOS in 2011. Her debriefing station is Seattle.

This is Jeannine's first land-based job in three years. She's looking forward to the predictability of the nine-to-five life and the opportunity to further her career.

She chose debriefing because it allows her "to continue contributing to sustainable fisheries as well as working with and supporting observers." She says:

"I'm excited about all the opportunities in front of me. A-SHOP is a small program. We're nimble and our duties are diverse. Things change from season to season, so there are a lot of opportunities to contribute in different ways and learn new things."

Jeannine considered job opportunities in the Electronic Monitoring (EM) sector as well as applying for this debriefer role. She says: "Observing taught me a lot about time management, being resourceful, working independently, and working with others of diverse backgrounds." Skills applicable to any position in any industry.

Like Ken, Jeannine knows she'll miss being on the water. However, she's looking forward to using her observer acumen in new ways. She's also looking forward to owning a pet. Preferably a cat. Her advice to observers looking ahead: "It can be hard to find time to search for, apply, and interview for jobs while observing. Keep at it. The more chances you give yourself, the more likely you'll reach your goal."